

(FILE 'HOME' ENTERED AT 11:41:31 ON 04 MAR 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:41:48 ON 04 MAR 2004

L1 178964 S (MUTAGENESIS)  
L2 509 S L1 AND HETERODUPLEX?  
L3 20 S L2 AND (POLYMERASE# AND EXONUCLEASE#)  
L4 11 DUP REM L3 (9 DUPLICATES REMOVED)  
L5 1878 S CEL(W)I OR FEN1 OR ENDONUCLEASE (W) (VII OR I) OR CLEAVASE  
L6 143 S L5 AND LIGASE  
L7 7 S L6 AND MUTAGEN?  
L8 7 DUP REM L7 (0 DUPLICATES REMOVED)  
L9 11408 S HETERODUPLEX?  
L10 113 S L9 AND (L5)  
L11 36 S L10 AND POLYMERASE  
L12 23 DUP REM L11 (13 DUPLICATES REMOVED)  
L13 23 DUP REM L12 (0 DUPLICATES REMOVED)  
L14 190 S RANDOM (9A) REPAIR?  
L15 136 S L14 AND (DNA OR NUCLEIC OR OLIGO?)  
L16 50 S L15 AND (MISMATCH? OR VARIAT? OR MUTA? OR HETERODUPLEX?)  
L17 23 DUP REM L16 (27 DUPLICATES REMOVED)  
L18 1278 S (REPAIR? OR CORRECT?) (5A) (PARTIAL? OR INCOMPLETE? OR PARTLY  
L19 117 S L18 AND POLYMERASE  
L20 8 S L19 AND LIGASE  
L21 4 DUP REM L20 (4 DUPLICATES REMOVED)  
L22 38 S L18 AND MUTAGENESIS/TI  
L23 15 DUP REM L22 (23 DUPLICATES REMOVED)  
L24 13 S L9 (9A) PARTIAL? (3A) (REPAIR? OR CORRECT?)  
L25 6 DUP REM L24 (7 DUPLICATES REMOVED)  
L26 1008 S INCOMPLETE (3A) (REPAIR? OR CORRECT?)  
L27 0 S L26 AND L5  
L28 125 S MUTAGENESIS AND L5  
L29 89 DUP REM L28 (36 DUPLICATES REMOVED)  
L30 7 S L29 AND HETERODUPLEX?  
L31 82 S L29 NOT L30  
L32 2205 S PADGETT?/AU  
L33 3 S L32 AND HETERODUPLEX?  
L34 947 S FITZMAURICE?/AU  
L35 2 S L34 AND MISMATCH?

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MEDLINE

DN PubMed ID: 7788530  
TI In vitro processing of **heteroduplex** loops and mismatches by  
**endonuclease VII.**  
AU Birkenkamp K; Kemper B  
CS Institute for Genetics, University of Cologne, Germany.  
SO DNA research : an international journal for rapid publication of reports  
on genes and genomes, (1995) 2 (1) 9-14.  
Journal code: 9423827. ISSN: 1340-2838.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199507  
ED Entered STN: 19950807  
Last Updated on STN: 19950807  
Entered Medline: 19950727  
AB **Endonuclease VII** is a Holliday-structure resolving enzyme of phage T4  
which cleaves at junctions of branched DNAs and at mispairings. In  
extension of these findings we report the following: i) **Endonuclease**  
**VII** can discriminate between a large **heteroduplex** loop and a TT  
mismatch arranged in tandem, 6 nt distant from each other, in the same  
**heteroduplex** molecule. The enzyme cleaves two nucleotides 3' from the  
base of the loop or the TT mismatch. ii) Similar to its reactions with  
mismatches cleavage of **heteroduplex** loops by endonuclease VII can also  
initiate correction of perfect double-strandedness by T4 DNA **polymerase**  
and T4 DNA-ligase in vitro. Loops of 8 nt and 20 nt were repaired  
efficiently. iii) For the first time **endonuclease VII** cleavage sites  
were also mapped in single-stranded DNA if it was part of the 20-nt loop.  
This suggests that looping of single-stranded DNA can induce formation of  
secondary structures, which are recognizable by **endonuclease VII**.

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